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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,237	08/28/2003	Sebastian Bierwirth	TRW(AS)6716	6394

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EXAMINER

JOHNSON, STEPHEN

ART UNIT PAPER NUMBER

3641

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/650,237

Applicant(s)

BIERWIRTH ET AL.

Examiner

Stephen M. Johnson

Art Unit

3641



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-14, 16-21 and 23-33 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☒ Claim(s) 1-33 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 3641

1. Applicant's election without traverse of species A (figs. 1-2) in the reply filed on 10/18/2004 is acknowledged.

Claims 4 and 22 are withdrawn from consideration as being directed to non-elected species. Claims 1-3, 5-21, and 23-33 read on the elected species and an action on these claims follows.

2. The drawings are objected to because holes 70 (see page 6, line 25) have not been illustrated. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Note that the substitute specification filed on 10/18/2004 has been denied entry. This is for several reasons. (1) It has not been accompanied by a statement that the substitute

Art Unit: 3641

specification contains no new matter. (2) It is not directed solely to a substitute of the written specification but also includes claims. Such is inappropriate for a substitute **specification**.

4. Claims 2, 7-14, 16-18, and 31-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, how is the phrase “an ignition transfer opening” intended to relate to the previously claimed ‘ignition transfer opening’? In claim 2, it is not understood as to how the ignition transfer opening can be provided in the igniter unit when it has been previously claimed as “being provided in said outer housing” (claim 1, lines 14-15). In claim 7, line 8, use of the phrase “said space” makes the claim indefinite as to which of the previously claimed spaces is intended (distribution space or intermediate space) (see claim 1, lines 18-19). In claims 13, 14, 17, 18, 31, and 32, use of the phrases “except for said distribution space, said insert lies with an entire surface against an inner face of said outer housing” or “except for said expansion space, said insert lies with an entire surface against an inner face of said outer housing” are not a correct description of the invention. The insert lies with its entire surface against an inner face of the outer housing except for both the distribution space and the expansion space. In claim 16, line 16, the phrase “said distribution space” lacks an antecedent. Claims 17 and 18 are indefinite for like reasons. In claim 33, the phrase “said central axis A” lacks complete agreement with its antecedent.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 3641

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-3, 5-6, 19-21, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dinsdale et al. in view of Rink et al..

Dinsdale et al. disclose a gas generator comprising:

- |   |                |
|---|----------------|
| a) a tubular outer housing;                       | contains 66    |
| b) a combustion chamber inside the outer housing; | 66             |
| c) a charge of propellant (liquid);               | 86             |
| d) at least one igniter unit;                     | 100            |
| e) an igniter;                                    | 104, 106       |
| f) a radial ignition transfer opening; and        | contains 100   |
| g) a distribution space or intermediate space.    | space above 86 |

Dinsdale et al. apply as previously recited. However, undisclosed is a charge of propellant that is a solid propellant. Rink et al. teach a charge of propellant that is a solid propellant (see paragraph 0062). Applicant is substituting one type of propellant charge for another in an analogous art setting as explicitly encouraged by the secondary reference (see paragraph 0062 of Rink et al.). It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Rink et al. to the Dinsdale et al. gas generator and have a gas generator with a solid propellant.

7. Claims 16-18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Art Unit: 3641

8. Claims 7-14 and 25-33 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Applicant's arguments with respect to claims 1-3, 5-6, 19-21, and 23-24 have been considered but are moot in view of the new ground(s) of rejection.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

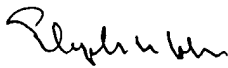
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 703-306-4158.

The examiner can normally be reached on Tuesday through Friday. If attempts to reach the

Art Unit: 3641

examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703-306-4198. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-4177.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9326. The fax phone number for after final communications is (703) 872-9327.



STEPHEN M. JOHNSON  
PRIMARY EXAMINER

Stephen M. Johnson  
Primary Examiner  
Art Unit 3641

SMJ